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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,362	09/05/2003	Ingolf Groening	2735	8248

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EXAMINER	
FERGUSON, MICHAEL P	

ART UNIT	PAPER NUMBER
3679	

DATE MAILED: 09/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/656,362	GROENING ET AL.	
	Examiner	Art Unit	
	Michael P. Ferguson	3679	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 July 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 May 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 1 and 15 are objected to because of the following informalities:

Claim 1 (line 12) recites "2 W/K m (Watt x Kelvin^{-1} x Meter^{-1})". It should recite --2 W/Km--. "(Watt x Kelvin^{-1} x Meter^{-1})" should be deleted.

Claim 15 (line 11) recites "2 W/K m (Watt x Kelvin^{-1} x Meter^{-1})". It should recite --2 W/Km--. "(Watt x Kelvin^{-1} x Meter^{-1})" should be deleted.

For the purpose of examining the application, it is assumed that appropriate correction has been made.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 (lines 1-6) recites "A connection element... provided for a releasable connection of an electric motor with a machine or a machine part which is driven by the electric motor, the connecting element comprising... at least one second abutment surface fixedly connected with the electric motor". It is unclear as to whether the applicant has intended to claim an assembly comprising the connection element and the electric motor, or whether the applicant has intended to claim only a connection element capable of use with an electric motor, wherein the electric motor is only recited as

intended use. Accordingly, one is unable to determine the metes and bounds of such claim. Claims 2-14 depend from claim 1 and are likewise rejected.

Claim 15 (lines 1-6) recites "A connection element... provided for a releasable connection of an electric motor with a machine or a machine part which is driven by the electric motor, the connecting element comprising... at least one second abutment surface fixedly connected with the electric motor". It is unclear as to whether the applicant has intended to claim an assembly comprising the connection element and the electric motor, or whether the applicant has intended to claim only a connection element capable of use with an electric motor, wherein the electric motor is only recited as intended use. Accordingly, one is unable to determine the metes and bounds of such claim. Claim 16 depends from claim 15 and is likewise rejected.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chaudoreille et al. (US 5,955,805) in view of Narasimhan et al. (US 6,520,703).

As to claims 1-8 and 10-13, Chaudoreille et al. disclose a connection element **20** composed of metal and capable of a releasable connection of an electric motor (connected to an alternator via bearing **10**; shown in Figure 2) with a machine or a machine part **34** which is driven by the electric motor, the connecting element

comprising at least one first abutment surface mountable on a wall of the machine or the machine part **34**, and at least one second abutment surface fixedly connected with the electric motor (via bearing **10**);

wherein the first abutment surface is provided with a blind hole **51,63** with an inner thread for screwing connection of the connecting element on the machine or on the machine part **34**;

wherein the second abutment surface is provided with a throughgoing opening **52,62** for screw connection of the electric motor (the alternator via bearing **10**) with the connecting element (Figures 1 and 2).

Chaudoreille et al. fail to disclose a connection element comprising at least one of the first abutment surface and the second abutment surface being provided with a thin metallic hard coating applied on and non-detachably connected with the abutment surface, which thin metallic hard coating is a surface treatment inseparable from the abutment surface, with a thermal conductivity having a value smaller than 2 W/Km; wherein the inner thread of the first abutment surface is provided with the thin metallic coating; wherein the throughgoing opening is provided with the thin metallic coating.

Narasimhan et al. teach a connection element **42,54** comprising an abutment surface provided with a thin metallic hard coating **60,62** applied on and non-detachably connected with the abutment surface, which thin metallic hard coating is a surface treatment inseparable from the abutment surface, with a low thermal conductivity value; the surface treatment preventing wear due to prolonged high temperatures due to high engine speeds and vibration (column 1 lines 25-31, column 2 lines 15-35, Figure 2).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a connection as disclosed by Chaudoreille et al. to have a surface treatment on the first and second abutment surfaces as taught by Narasimhan et al. in order to prevent wear due to prolonged high temperatures due to high engine speeds and vibration.

Narasimhan et al. fail to disclose a thin metallic coating having a thermal conductivity having a value smaller than 2 W/Km; and having a nitrated titanium, a nitrated titanium mixed with carbon, a nitrated alloy of titanium and aluminum, a chromium mixed with carbon, a nitrated chromium, a tungsten carbide, or a tungsten mixed with carbon.

The applicant is reminded that the selection of a known material based upon its suitability for the intended use is a design consideration within the skill of the art. In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a connection element as disclosed by Chaudoreille et al. in view of Narasimhan et al. wherein the thin metallic coating has a thermal conductivity having a value smaller than 2 W/Km; and has a nitrated titanium, a nitrated titanium mixed with carbon, a nitrated alloy of titanium and aluminum, a chromium mixed with carbon, a nitrated chromium, a tungsten carbide, or a tungsten mixed with carbon as such practice is a design consideration within the skill of the art.

As to claim 9, Narasimhan et al. fail to disclose a connection element wherein the thin metallic coating has a thickness between 1 um and 10 um.

The applicant is reminded that a change in the size of a prior art device is a design consideration within the skill of the art. In re Rose, 220 F.2d 459, 105 USPQ 237 (CCPA 1955). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a connection element as disclosed by Chaudoreille et al. in view of Narasimhan et al. wherein the thin metallic coating has a thickness between 1 um and 10 um as such practice is a design consideration within the skill of the art.

As to claim 14, Chaudoreille et al. disclose a connection element **20** comprising integrate cooling conduits **14** for circulation of cooling fluid (Figures 1 and 2).

As to claims 15 and 16, Chaudoreille et al. disclose a connection element **20** composed of metal and capable of a releasable connection of an electric motor (connected to an alternator via bearing **10**; shown in Figure 2) with a machine or a machine part **34** which is driven by the electric motor, the connecting element comprising at least one first abutment surface mountable on a wall of the machine or the machine part **34**, and at least one second abutment surface fixedly connected with the electric motor (via bearing **10**);

wherein the connection element comprises threaded openings **51,63** (Figures 1 and 2).

Chaudoreille et al. fail to disclose a connection element comprising at least one of the first abutment surface and the second abutment surface being provided with a thin metallic hard coating applied on and non-detachably connected with the abutment surface, which thin metallic hard coating is a surface treatment inseparable from the

abutment surface, with a thermal conductivity having a value smaller than 2 W/Km; wherein the threaded openings are provided with the thin metallic coating.

Narasimhan et al. teach a connection element **42,54** comprising an abutment surface provided with a thin metallic hard coating **60,62** applied on and non-detachably connected with the abutment surface, which thin metallic hard coating is a surface treatment inseparable from the abutment surface, with a low thermal conductivity value; the surface treatment preventing wear due to prolonged high temperatures due to high engine speeds and vibration (column 1 lines 25-31, column 2 lines 15-35, Figure 2). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a connection as disclosed by Chaudoreille et al. to have a surface treatment on the first and second abutment surfaces as taught by Narasimhan et al. in order to prevent wear due to prolonged high temperatures due to high engine speeds and vibration.

Narasimhan et al. fail to disclose a thin metallic coating having a thermal conductivity having a value smaller than 2 W/Km.

The applicant is reminded that the selection of a known material based upon its suitability for the intended use is a design consideration within the skill of the art. In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a connection element as disclosed by Chaudoreille et al. in view of Narasimhan et al. wherein the thin metallic coating has a thermal conductivity having a value smaller than 2 W/Km as such practice is a design consideration within the skill of the art.

Applicant is reminded that **process limitations are given little patentable weight in product claims** since the patentability determination of product-by-process claims is based on the product itself, even though such claims are limited and defined by the process. See MPEP § 2113. "The patentability of a product does not depend on its method of production. " In re Thorpe, 777 F.2d 695,698,USPQ 964,966 (Fed.Cir.1985).

6. Claims 1-9 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Narasimhan et al.

As to claims 1-8, Narasimhan et al. disclose a connection element **42** composed of metal and capable of a releasable connection of an electric motor (connected to generator shaft **30**; shown in Figure 2) with a machine or a machine part **54** which is driven by the electric motor, the connecting element comprising at least one first abutment surface **62** mountable on a wall of the machine or the machine part **54**, and at least one second abutment surface fixedly connected with the electric motor (via generator shaft **30**), at least one of the first abutment surface and the second abutment surface being provided with a thin metallic hard coating **62** applied on and non-detachably connected with the abutment surface, which thin metallic hard coating is a surface treatment inseparable from the abutment surface (column 1 lines 25-31, column 2 lines 15-35, Figure 2).

Narasimhan et al. fail to disclose a connection element wherein the thin metallic coating has a thermal conductivity having a value smaller than 2 W/Km; and having a nitrated titanium, a nitrated titanium mixed with carbon, a nitrated alloy of titanium and

aluminum, a chromium mixed with carbon, a nitrated chromium, a tungsten carbide, or a tungsten mixed with carbon.

The applicant is reminded that the selection of a known material based upon its suitability for the intended use is a design consideration within the skill of the art. In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a connection element as disclosed by Narasimhan et al. wherein the thin metallic coating has a thermal conductivity having a value smaller than 2 W/Km; and has a nitrated titanium, a nitrated titanium mixed with carbon, a nitrated alloy of titanium and aluminum, a chromium mixed with carbon, a nitrated chromium, a tungsten carbide, or a tungsten mixed with carbon as such practice is a design consideration within the skill of the art.

As to claim 9, Narasimhan et al. fail to disclose a connection element wherein the thin metallic coating has a thickness between 1 um and 10 um.

The applicant is reminded that a change in the size of a prior art device is a design consideration within the skill of the art. In re Rose, 220 F.2d 459, 105 USPQ 237 (CCPA 1955). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a connection element as disclosed by Narasimhan et al. wherein the thin metallic coating has a thickness between 1 um and 10 um as such practice is a design consideration within the skill of the art.

As to claim 15, Narasimhan et al. disclose a connection element **42** composed of metal and capable of a releasable connection of an electric motor (connected to generator shaft **30**; shown in Figure 2) with a machine or a machine part **54** which is driven by the electric motor, the connecting element comprising at least one first abutment surface **62** mountable on a wall of the machine or the machine part **54**, and at least one second abutment surface fixedly connected with the electric motor (via generator shaft **30**), at least one of the first abutment surface and the second abutment surface being provided with a thin metallic hard coating **62** applied on and non-detachably connected with the abutment surface, which thin metallic hard coating is a surface treatment inseparable from the abutment surface (column 1 lines 25-31, column 2 lines 15-35, Figure 2).

Narasimhan et al. fail to disclose a connection element wherein the thin metallic coating has a thermal conductivity having a value smaller than 2 W/Km.

The applicant is reminded that the selection of a known material based upon its suitability for the intended use is a design consideration within the skill of the art. In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a connection element as disclosed by Narasimhan et al. wherein the thin metallic coating has a thermal conductivity having a value smaller than 2 W/Km as such practice is a design consideration within the skill of the art.

Applicant is reminded that **process limitations are given little patentable weight in product claims** since the patentability determination of product-by-process

claims is based on the product itself, even though such claims are limited and defined by the process. See MPEP § 2113. "The patentability of a product does not depend on its method of production. " In re Thorpe, 777 F.2d 695,698,USPQ 964,966 (Fed.Cir.1985).

Response to Arguments

7. Applicant's arguments with respect to claim1-16 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Ferguson whose telephone number is (571)272-7081. The examiner can normally be reached on M-F (8:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571)272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MPF
09/14/06

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